

M0430019  
TASK 2779  
cc: Leslie

Form MR-REV-SMO (DOGM – Revise/Amend Change Form)  
(Revised November 21, 2006)

## Application to Revise a Notice of Intention to Commence Small Mining Operations or Exploration

Operator: <u>Robert Hickey</u>			
Mine Name: <u>Mountain Valley Stone</u>		File Number: E or M/ <u>M/043/019</u>	
Provide a detailed listing of all changes to the Notice that will be required as a result of this change. Individually list all maps and drawings that are to be added, replaced, or removed from the Notice. Include page, section and drawing numbers as part of the description.			
<b>DETAILED SCHEDULE OF CHANGES TO THE NOTICE</b>			
			Description of map, text, or materials to be changed
ADD	<u>REPLACE</u>	REMOVE	<u>Red line strike out of all Notice of</u>
ADD	<u>REPLACE</u>	REMOVE	<u>Intention to Commence Large Mining</u>
ADD	<u>REPLACE</u>	REMOVE	<u>Operations</u>
ADD	<u>REPLACE</u>	REMOVE	
ADD	<u>REPLACE</u>	REMOVE	
ADD	<u>REPLACE</u>	REMOVE	
ADD	<u>REPLACE</u>	REMOVE	
ADD	<u>REPLACE</u>	REMOVE	
ADD	<u>REPLACE</u>	REMOVE	
ADD	<u>REPLACE</u>	REMOVE	
I hereby certify that I am a responsible official of the applicant and that the information contained in this application is true and correct to the best of my information and belief in all respects with the laws of Utah in reference to commitments and obligations, herein.			
<u>Brad Young</u> Print Name		<u>[Signature]</u> Sign Name, Position <u>HR/safety manager</u>	
		<u>12/1/08</u> Date	

**Return to:**

State of Utah  
Division of Oil, Gas and Mining  
Attn: Minerals Regulatory Program  
1594 West North Temple, Suite 1210  
Box 145801  
Salt Lake City, Utah 84114-5801  
Phone: (801) 538-5291 Fax: (801) 359-3940

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<b>FOR DOGM USE ONLY:</b>	
File #:	<u>M/</u> / <u></u>
Approved:	<u></u>
Bond Adjustment: from (\$)	<u></u>
to \$	<u></u>

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Div. of Oil, Gas & Mining

0005

## **Notice of Intention to Commence large Mining Operations**

### **R647-4-104 Operator(s), Surface and Mineral Owners**

1. Mine Name: Browns Canyon
2. Name of applicant or Company: Mountain Valley Stone, Inc.
3. Permanent Address: 2276 South Daniels Road  
Heber City, Utah 84032
4. Company Representative (or designated operator)  
Robert John Hicken  
President  
2276 South Daniels Road  
Heber City, UT 84032  
(435) 654-0120  
(435) 654-3337 Fax
5. Location of Operation:  
Summit County  
Township 1 South, Range 5 East  
Southwest ¼ Section 20
6. Ownership of the Land surface: Private  
John Hut  
4316 South Adonis Drive  
Holladay, UT 84124
7. Owner(s) of record of the minerals to be mined:  
Wright Garff Resources  
1675 North Beck Street  
Salt Lake City, UT 84116-1214
8. Have the above owner(s) been notified in writing? Yes
9. Does the operator have legal right to enter and conduct mining operations on the land covered by this notice? Yes

### **R647-4-105 Maps, Drawing & Photographs**

#### **105.1 Base Map (SP1, Fig.1)**

- a. Property boundaries of surface ownership of all lands which are to be affected by the mining operations.
- b. Perennial, intermittent, or ephemeral streams, springs and other bodies of water; roads, buildings, landing strips, electrical transmission lines, water wells, oil and gas pipelines, existing wells or boreholes, or other existing surface or subsurface facilities within 500 feet of the proposed mining operations;
- c. Proposed route of access to the mining operations from the nearest publicly maintained highway.
- d. Known areas which have been previously impacted by mining or exploration activities within the proposed land affected.
- e. Areas proposed to be disturbed or reclaimed over the life of the project or other suitable time period.

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### 105.2 Surface Facilities Map (SP1, Fig.2)

- a. Proposed surface facilities, including but not limited to: buildings, stationary mining/processing equipment, roads, utilities, power lines, proposed drainage control structures, and the location of topsoil storage disposal areas for overburden/waste dumps, tailings or processed waste facilities, disposal areas for overburden, solid and liquid wastes, and wastewater discharge treatment and containment facilities.
- b. A border clearly outlining the extent of the surface area proposed to be affected by mining operations, and the number of acres proposed to be affected.
- c. The location of test borings, pits, or core holes.

### 105.3 Additional Maps Reclamation Treatments (SP2)

- a. Areas of the site to receive various reclamation treatments shaded, crosshatched or color-coded to identify which reclamation treatments will be applied. Areas would include: buildings, stationary mining /processing equipment, roads, utilities, proposed drainage improvements or reconstruction, and sediment control structures, topsoil storage areas, waste dumps, tailings or processed waste and wastewater discharge, treatment and containment facilities. Reclamation treatments may include ripping, regrading, replacing soil, fertilizing, mulching, broadcast seeding, drill seeding, and hydro seeding.
- b. A border clearly outlining the extent of the area to be reclaimed after mining, the number of acres disturbed, and the number of acres proposed to be reclamation.
- c. Areas disturbed by this operation which are included in a request from a variance from the reclamation standards.
- d. Highwalls which are proposed to remain steeper than 45 degrees and slopes which are proposed to remain steeper than 3 horizontal: 1 vertical.

## **R647-4-106 Operation Plan**

106.1 Minerals to be mined: Sandstone

106.2 Type of operation: Material is to be pulled off the high walls with a track hoe and moved to one of three areas via a Front End Loader. Landscape material is moved to one side and stock piled. Other materials are taken to the Guillotine or the splitting area for flag production.

Equipment to be used:

2 Front End Loaders	6 Track Hoes
2 Fork lift/ Loaders	3 Guillotines
2 Skid Steers	1 Wire Saw
1 Tumbler Machine	1 Haul Truck

106.3	Approximate Acreage	Current
	Areas of actual mining	9.04 acres
	Overburden dumps	2.52 acres
	Access/haul roads, storage areas	2.6 acres
	Proposed future mining	18.84 acres
	Total actual Five year Acreage	33 acres
	Total actual Life of Mine Acreage	126.2 acres

106.4 Nature of material including waste rock/overburden and estimated tonnage

Waste material in the form of fines and rock is pulled off the high wall along with the usable sandstone. This overburden is made up of about 60% fines and 40% rock waste.

Thickness of Overburden:	75 feet
Thickness of mineral deposit:	unknown
Estimated annual volume of overburden	10,000- 60,000 tons
Estimated annual volume of tailings	30,000- 50,000 tons
Estimated annual volume of ore	10,000- 20,000 tons

106.5 Existing soil types, location of plant growth material

See Appendix #1

106.6 Plan for protecting and redepositing existing soils

Thickness of soil material to be salvaged and stockpiled:	6 inches
Area from which soil material can be salvaged:	(see map SP1)
Volume of soil to be stockpiled:	As necessary

Soil will be scraped off from above the high wall prior to moving the wall, and also scraped off from in front of the overburden as it moves. As quarrying activities progress, current stockpiles will be bermed and stockpiled at the sides of the quarrying activities or in an area clear of the mining operation. Minimize stockpiles sides to a 2 to 1 slope for erosion control. Stockpiles will be seeded with a quick growing ground cover (i.e. yellow sweet clover, alfalfa, and orchard grass).

106.7 Existing vegetative communities to establish revegetation success

Vegetation

There are 2.62 acres of wetlands on the proposed mining area. (Appendix #2) We will not disturb these areas until properly permitting with Army Corp and the State of Utah.

To estimate vegetation on a nearby-undisturbed area not considered wetland, a total of 15 transects were used. The most frequently observed species was sagebrush. The only other species sampled in the shrub layer was serviceberry, blue bunch, wheat grass, Kentucky blue grass, and Oregon grape. The average ground cover was 52%.

Ground Cover Table:

Total Vegetation Cover < 1m	52
% Grass cover	46
% Herb cover	2
% Woody species cover in ground layer	4
% Litter	33
% Rock	15
% Bare Ground	<1

106.8 Depth of groundwater, overburden material & geologic setting

The operation is on a rocky hillside with little ground above it to produce ground water. The seasonal waterways that exist have an estimated flow of 5 gallons an hour.

Mountain Valley Stone put in a water well the spring of 2006. The well was dug to 200 feet. Water was struck at 30 feet. The water will be used for dust control and other mining needs throughout the quarry. The well has an 8" casting diameter.

Sandstone is quarried from the Jurassic-Triassic nugget sandstone. The nugget sandstone is thickly bedded mostly buff colored sandstone at the site of this quarrying operation. There are small areas of red colored sandstone, variable buff to red colored sandstone, and sandstone with concentric rings colored by iron oxides. All the salable stone is from the nugget sandstone.

The nugget sandstone has been widely replaced by intruded Tertiary andesites. The andesites are strongly weathered near the surface, and have decomposed into thick layers of clays. This is all waste material. Much of the waste identified as fine rock comes from Tertiary andesites.

106.9 Location and size of ore and waste stockpiles, tailings and treatment ponds, and discharges. (SP1) All overburden is crushed and sold as a byproduct by a secondary contractor.

## **R647-4-107 Operation Practices**

Describe measures taken to minimize hazards to public safety during mining operations regarding:

### **107.1 Public Safety and Welfare**

Signs will be posted at the entrance of the operation stating that heavy equipment is in use and that blasting activities may periodically take place at the site.

Shafts and Tunnels: None will be installed

Disposal of Trash: Trash and other manmade waste material will be hauled to the proper landfill.

Plugging or capping of drill, core or other exploratory holes: None will be created.

Posting of appropriate warning signs: All proper warning signs will be maintained in and around fuel tanks and stationary equipment.

Construction of berms, fences, and barriers: Berms will be maintained where they are required, along roadway and top edge of overburden dumping site.

Describe measures taken to avoid or minimize environmental damages to natural drainage channels, which will be affected by this mining operation: Drainage channels are not located in the proposed mining area.

Identify any potentially deleterious materials that may be stored on site and describe how they will be handled and stored: We will have gasoline and diesel fuel on site and also a small amount of motor oil for use in the loaders, backhoes, and skidsteers. The oil will be stored in its original containers and kept on a shelf in the mechanics storage area. The gasoline and diesel will be stored in two mobile above ground tanks with required catch tubs under each tank. The smaller tank is located in a cattle trough adequate to contain 110% of the total tank contents. The diesel fuel tank is mounted upon an earth berm, lined with visquene and back filled with gravel. Sufficient area has been provided to maintain at least 110% of the total tank contents.

All blasting is done by contract such that no powder magazines are kept onsite.

### **107.5 Suitable soils removed and stored**

We will grade off topsoil above the high wall as it moves into the hill, and also the soil in front of the overburden as it moves out. This soil will be stockpiled and sloped at a 2 to 1 minimize erosion and allowing overgrowth to grow to further help holding the soil in place. Seeding of top soil berms will also be used to further minimize erosion.

Describe any reclamation to be done during active mining operations prior to final closure: As our mining progresses and it becomes evident that we have areas that will not be affected by further mining operations, this area will be reclaimed by replacement of topsoil and reseeding.

## **R647-109 Impact Statement**

### **109.1 Surface and groundwater systems:**

Mountain Valley Stone will do everything in its power to leave undisturbed all wetland areas. There will be a 20 foot buffer placed around all wetlands. There will also be an erosion fence placed at the 20 foot buffer.

Mountain Valley Stone has dug a water well. The well was dug to 200 feet; water was struck at 30 feet. The well was dug following all frilling regulations placed by the state. Mountain Valley Stone has also purchased 2 acre feet of water right through Weber Basin Water District to use commercially. The water right number is 31360; the state well permit number is 35-11950 (E4677). The well was dug into unconsolidated material above the nugget.

### **109.2 Wildlife habitat and endangered species:**

The area we are mining in does have wetland area in it, but it will not be disturbed unless properly permitted for. We will keep a 20 foot buffer to all areas as previously approved. As for wildlife and big game species, we are in an area where we pose no threat to wildlife or waterfowl.

### **109.3 Existing soil and plant resources:**

We are not a threat to any endangered plant species.

### **109.4 Slope stability, erosion control, air quality, public health and safety:**

Due to the remote location of our mining operation, we pose no thereat to public safety. Visitors, customers, and maintenance personnel will be given site-specific hazard awareness training (per MSHA regulations). Dust created during the summer months is kept in check by spaying down

the work areas with water from a water truck. Slope stability is maintained because of our two step method of pulling off the rocks.

#### **R647-4-110**

##### **110.1 Current land use and post mining land use:**

Current or pre-mining land use was pasture and some grazing. Post mine use could be pasture and grazing land.

##### **110.2 Reclamation of roads, high walls, slopes, leach pads, dumps, etc.:**

Ripping the road surface with a dozer and leaving it in a rough state and reseeding will reclaim roads.

High walls will be worked to maintain a 45 degree slope and stair stepped to insure safety and stability. The steps or benches will be back filled with overburden material and topsoil using a loader. Concurrent reclamation will be taking place as the current quarrying activities migrate into new areas. Soils and overburden material will be distributed accordingly. All will be finished off with the requisite seed mixture.

Reclaiming impoundments, pits, and pounds: N/A

Reclaiming drainage: N/A

Describe how waste dumps will be reclaimed: Waste dumps will be regarded to a 3h:1v configuration and reseeded.

Describe how shafts and adits will be reclaimed: N/A

Describe how drill holes will be reclaimed: The well will not be plugged, but used post mining for agricultural purposes.

Describe how tailings area will be reclaimed: N/A

Describe how leach pads will be reclaimed: N/A

Any stockpiled materials that are on site at the time of final reclamation will be loaded on trucks and hauled to our stone yard in Heber, UT.

##### **110.3 Surface facilities to be left:**

At the time of final reclamation no surface facilities will remain. Buildings used at the mining site are portable and will be removed to other work



sites, sold, or destroyed. Roads will be ripped and reseeded. Trash and other manmade waste material will be hauled to the proper landfill.

#### 110.4 Treatment, location and disposition of deleterious materials:

Several hydrocarbons are used in this operation. There is an above ground gas tank and an above ground diesel tank located within a secondary containment unit for each. Other hydrocarbons onsite usually include hydraulic oil, motor oil, tube grease, and starting fluid, all of which are stored in a storage shed. No processing chemicals are used at this mining site. All of the tanks and cases of this material will be removed for the mining area at the end of reclamation.

#### 110.5 Revegetation planting program and topsoil redistribution:

Soil material replacement: Topsoil from stockpiles will be scooped up during reclamation and spread on the surface of the quarry. Soil materials will be amended with compost. The mixture will be approximately 6" thick. Soil materials will be spread with a rubber tired front end loader.

Seed bed preparation: The area of the quarry will be ripped to a depth of one foot with the ripper spaced at a maximum of two feet, and left in a very rough condition immediately prior to seeding. The compacted surfaces of the road way will be ripped to a depth of two feet and left in a very rough condition also.

Seed mixture will be that mix as approved by the DOGM of the state of Utah.

<u>Species</u>		<u>Lbs/ Acre</u>
Wyoming big sagebrush	VNS	0.1
Rocky Mountain Penstemon	Bandera	1
Orchard Grass	Paiute	2
Yellow Sweetclover	VNS	1
Forage Kochia	Immigrant	1
Saskatoon Serviceberry	VNS	1
Alfalfa	Ladak	1
Intermediate Wheatgrass	Oahe	3
Antelope Bitterbrush	VNS	1
Small Burnet	Delar	1
Thickspike Wheatgrass	Critana	2
Bluebunch Wheatgrass	Secar	2
Basin Wildrye	Trailhead	1

Seed will be broadcast and raked into the soil in the fall of the year.

Fertilization if required will be composted steer manure. It is recommended that we use composted steer manure at the rate of 5 ton per acre with soil, and 10 ton per acre with fines and overburden material.

Other revegetation procedures: None

#### **R647-4-111 Reclamation Practices**

##### **111.5 Constructing berms/fences above high wall:**

If the high wall exists at the time of reclamation, berms will be placed in these areas to warn the public of the hazard. As these berms are removed for reclamation, warning signs will be posted to alert personnel or visitors as the high wall danger.

##### **111.6 All slopes regraded to stable configurations:**

To prevent erosion, all overburden slopes should be reduced to a 3h:1v slope or less at the time of final reclamation. Topsoil and manure mixture will be distributed at the same rate noted in R647-4-110.5.

#### **R647-4-113 Surety**

Surety amount established by addressing these major tasks:

1. Clean-up and removal of structures
2. Backfilling, grading and contouring
3. Soil material redistribution and stabilization
4. Revegetation (preparation, seeding, mulching)
5. Safety gates, berms, barriers, signs, etc.